Conclusions: Cardiac rupture following myocardial infarction is an important cause of mortality, and may occur either early after the onset of infarction, or in the sub acute phase during infarct remodeling. Recognition of typical risk factors and symptoms associated with myocardial rupture will enable potentially life-saving interventions, such as emergency cardiac surgery.

A study of peripheral arterial disease in diabetic patients in a tertiary care centre

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Background: Peripheral arterial disease (PAD) has an important place in health care due to its high incidence and prevalence, as well as its consequences. Diabetes is an important risk factor for lower extremity arterial disease (LEAD) and is clinically identified by intermittent claudication and/or absence of peripheral pulses in the lower legs. With the use of doppler technology and ankle brachial index, LEAD can be identified noninvasively before clinical manifestation, while angiography remains the gold standard for identification and diagnosis of LEAD.
Objective: Our study aims to record clinical profile of PAD in type 2 DM patients, study usefulness of ABI as predictor of severity of PAD as judged on Doppler and angiography.
Methods: Baseline demographic characteristics like age, sex, diabetes duration, hypertension, ischemic heart disease and addictions like smoking and alcohol consumption were recorded.Diagnosis of PAD was based on symptoms, clinical signs, ankle brachial index and Doppler. Patients diagnosed with PAD were posted for peripheral angiography after taking informed written consent to determine severity, site of lesion and further management.
Results: Majority of patients were in age group of 51-60 years. Mean duration of diabetes was 12 years. HTN was more common than IHD while smoking was more common than alcohol. ABI was not significantly associated with co-morbidities (like HTN and IHD), addictions (like smoking and alcohol), age or duration of diabetes. Claudication was the most common symptom with mean ABI of 0.69. Dorsalis pedis and posterior tibialis were the most common arteries affected on pulse examination and Doppler. Femoropopliteal arterial segment was most commonly affected on angiography. ABI was significantly associated with pulse examination, Doppler findings and angiography indicating importance of ABI in screening patients for PAD. Association between Doppler and angiography was statistically significant but weakly correlated.
Conclusion: ABI is a useful screening test for PAD and is significantly associated with pulse examination, Doppler and angiography. Doppler is a best non-invasive, cost effective and practical alternative to angiography in all except in those cases which are candidates for revascularisation.

Evaluation of patients with atrial fibrillation by transesophageal echocardiography

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Background: Atrial fibrillation (AF) is a frequently encountered arrhythmia that has significant impact on cardiovascular morbidity and mortality. The advent of transesophageal echocardiography (TEE) especially multiplane TEE has ushered in new concepts and methods in the management of AF. TEE allows for a detailed anatomic assessment of the atria and the left atrial appendage. From this broadened knowledge, concepts, such as TEE-guided cardioversion, have been developed.
Aim: To evaluate the patients with atrial fibrillation using transesophageal echocardiography.
Methods: 452 patients with atrial fibrillation were studied during the period of May 2006 to May 2012 in National Institute of Cardiovascular Diseases (NICVD) , Dhaka. All patients underwent transthoracic echocardiography and transesophageal evaluation by GE VIVID S5 machine with multiplane TEE probe.
Results: 78% were female, 22% were male. Mean age of the study population was 32 ± 08 years. 86% patients had chronic rheumatic heart disease (CRHD), 5% patients had hypertension, 3% patients had thyrotoxicosis, 2% patients had congenital heart diseases, 1% had dilated cardiomyopathy, 1% had ischemic cardiomyopathy, 1.5% had ischemic heart disease and 0.5% had hypertrophic obstructive cardiomyopathy. Transthoracic Echo examination showed left atrial spontaneous echo contrast in 25% cases and left atrial clot in 26% patients. Transesophageal echocardiograph examination showed left atrial spontaneous echo contrast in 76% cases and left atrial clot in 54% patients. Mean left atrial appendage flow velocity in patients with left atrial thrombus was 0.15 ± 0.04 m/sec and in patients without left atrial thrombus was 0.32 ± 0.07 m/sec.
Conclusion: AF is one of the commonest arrhythmia in clinical practice. 67% patients with rheumatic heart disease had left atrial thrombus and proper anticoagulation must be addressed for these patients.

Clinical and angiographic study of aortoarteritis in a superspecialized centre in Dhaka city

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Background: Takayasu's arteritis is an inflammatory vascular disease of the young involving the large elastic arteries resulting in occlusive or ecstatic changes mainly in the aorta and its major branches as well as the pulmonary artery and its branches.
Aims: To evaluate the clinical and angiography profile and management of aortoarteritis.
Methods: 80 patients with Aortoarteritis were studied over a period of 11 years between August 2003 to February 2014. Data on clinical features, laboratory and angiographic findings, disease course and management were all recorded and analyzed in a computer based software system.
Results: Out of 80 patients (60 females, 20 males) with angiographically diagnosed Aortoarteritis. The median age of onset was 34 years (Ages 12 to 68 yrs). The clinical evaluation revealed inequal pulse (100%), hypertension (86%), intermittent claudication (35%) and CNS symptoms (18%). Commonest cause for systemic hypertension was renal artery stenosis. Ten patients were having dilated cardiomyopathy with ejection fraction of <30% out of which 3 had significant CAD, 6 had severe hypertension and 3 patients had severe AR. Elevated erythrocyte sedimentation rate

was noted in 16 pateints (20 %). Incidence of types of arteritis Type I- 04%; Type II- 05% , Type III -66%; Type IV - 21%; Type V- 04% . Vessels involved were aortic arch (53%), renal artery (38%), subclavian artery (18 %), descending aorta (22%), carotid (15%), coronary (15%) and pulmonary artery (4%). 40 patents (50%) were on antihypertensive therapy, out of which 5 cases needed renal artery stenting. 24 patients were on steroid maintanence therapy, which helped in lowering of ESR. 5 patients were on both methotrexate and steroid.

Conclusions: Aortoarteritis is a rare disease, more commonly seen in young females in second and third decade. Type III involvement was more common. Most patients require repeated and at times, prolonged course of therapy. Although mortality was low, substantial morbidity occurred in most patients.

Study of clinical presentation in patients with LMCA disease

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Background: Left main coronary artery disease is considered a dreaded entity among CAD. Clinical presentation of LMCA presents atypically in comparison to other coronary artery stenosis.

Objective: To study the clinical presentation of patients with LMCA disease vs. non LMCA disease in patients with CAD.

Methods: 508 patients admitted to department of cardiology with CAD between Jan 2013 and December 2013 who underwent CAG were analysed retrospectively. Patients were divided into 2 groups with and without LMCA.

Results: Among 508 patients who underwent CAG 102 patients had significant LMCA disease, 406 patients without LMCA disease. Atypical Chest pain (mid scapular pain with radiation to front of chest) with/without dyspnoea was more prevalent in patients with LMCA disease. Atypical chest pain with dyspnoea was present in 37pt in LMCA vs. 18 pt in non-LMCA (34.5% vs. 4.43%, $p<0.001$) while atypical chest pain was present in 42 pt with LMCA vs. 53 pt in non LMCA group (41.17% vs. 13.05%,$p<0.001$) while typical angina was present in 23pt in LM disease vs. 335pt with non-LMCA pt (22.5% vs. 82.5% , $p<0.046$).

Conclusion: This study concludes that atypical chest pain especially midscapular pain with radiation to front of chest if associated dyspnoea strongly predicts for LMCA over non- LMCA disease.

Cardiac manifestations in HIV

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Background: Cardiac manifestations in HIV are varied and only a few studies are available from India.

Methods: 100 HIV – infected patients attending the Osmania general hospital were included in this prospective study irrespective of their duration of their illness and ART status.Patients with evidence of heart disease previous to the diagnosis of their HIV infection were specifically excluded.

Results: Among100 patients 82% are males and 18% are females.were staged according to WHO clinical staging of HIV/AIDS. 6% belong to stage 2, 50% belong to stage 3 and 44% belong to stage 4. incidence of cardiac manifestations is 22% among the HIVpatients in males is 23.17% it is 16.66% in females. most common is dilated cardiomyopathy 22.72%, pericardial effusion 18.18%,coronary artery disease 13.63%,pulmonary hypertension 13.63%, left ventricular hypertrophy 9.09%,diastolic dysfunction 4.54%, mitral valve prolapsed 4.54%, other valvular heart disease 4.54%, pulmonary thromboembolism 4.54% and mediastinal mass 4.54%.Comparing various stages of HIV, in stage 2 one patient has mitral valve prolapse. In Stage 3 the incidence is 18% and the incidence in stage 4 is 27.27%. The incidence of dilated cardiomyopathy and pericardial effusion is higher in stage 4. The incidence is 100% and 75% respectively. The incidence of pulmonary hypertension, coronary artery disease, left ventricular hypertrophy and diastolic dysfunction is found to be more in stage 3. The incidences are 66.67% for each of these conditions. Almost 86.37% of manifestations occur when CD_4 count is below 250. 78.95% of males consume alcohol and 84.21% of males smoke. Dyslipidemia is seen in 22.73% with cardiac disease and inpatients without cardiac diseases 2.56%. Systemic HTNis seen in 22.72% in patients with cardiac disease and in patients without cardiac disease is 2.56%. DM in 18.18% in patients with cardiac disease and in patients without cardiac disease is 1.28%.

Conclusions: Cardiovascular complications are commonly seen in HIV-infected patients. The presence of risk factors like systemic HTN and DM increases the risk of cardiac diseases.

Study of cardiovascular manifestations in HIV infected adult patients

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Background: India is estimated to have 2.4 million HIV-infected individuals. HIV affects all systems of body, cardiac abnormalities being less well documented.

Aims: Study prevalence of cardiac diseases in HIV/AIDS pts, the types of cardiac diseases and comparison of the prevalence and type of cardiac diseases between pts who had treatment and who had not.

Methods: Two hundred consecutive HIVpositive pts were include.Detailed clinical-profile, examination, routine investigations, ECG and ECHO etc were done, angiograms not done due to cost issues.

Results: 86% of pts were between 15-49yrs, only 14% >50. 65% were males, 35% females. 64% patients had CD4 count <200, 25% patients 201-350 and 11% had more than 350. 45% patients were on ART and 55% pts were not on ART. 67 pts had AIDS and 33 pts did not have AIDS. Cardiac disorders were detected in 44%, 56% pts had no cardiac disorders. Cardiac symptoms were present in only 5% of pts. 6% pericardial effusion, 5% systolic dysfunction, 5% pulmonary hypertension, 4% dilated cardiomyopathy, 1% mitral regurgitation. 80% had normal ECG, sinus tachycardia 15%, low-voltage-complexes 5%. 75% normal chest X-ray, cardiomegaly in 6%. 50% had cavity/infiltrates, 16% pleural effusion, 26% pneumonia, 5% bilateral extensive reticulonodular shadows. Low Hb level was significantly associated with cardiac disorder. Symptomatic cardiac disease was present in patients-with-AIDS (CD4 <200). Pts with cardiac disorders had significantly low CD4 count as compared to the pts without. Lower CD4 count significantly associated with pericardial effusion. Two patients on ART had cardiomyopathy and as against four patients who were not on ART.